



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,054	02/20/2004	Hans Joachim Langhoff	60,130-2012;02MRA0356	6861
26096	7590	11/17/2006		EXAMINER
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009				HONG, JOHN C
			ART UNIT	PAPER NUMBER
			3726	

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/784,054	LANGHOFF ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	JOHN C. HONG	3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 8/30/06.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2,3 and 22-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2,3 and 22-36 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date: _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 2,3,22,23 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. (U.S. Patent 4160851) in view of Böhm et al. (us 6869851).**

**Regarding Claim(s) 22,** Lienert et al. teach : a method for manufacturing a vehicle body panel, comprising: applying a plastic film onto a reverse side of a film-like exterior covering (col.2, lines 9-19); hardening the plastic film (col. 2, lines 13 and 14); applying a back-foamed layer on top of the hardened plastic film (col.10, lines 63 and 65).

Lienert et al. fail to teach the step of adding fibers to the back-foamed layer wherein the plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel.

Böhm et al. teach the step of adding fibers to the back-foamed layer (col. 3, lines 8-20) wherein the plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel (col. 3, lines 34-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of adding fibers to the back-foamed layer wherein the plastic film prohibits fibers from causing imperfections in an exterior surface of the

vehicle body panel, as taught by Böhm et al. on the method of Lienert et al. so as to prevent fibers from appearing on the outer surface as small bumps, thereby preserving a high-quality appearance.

**Regarding Claim(s) 2,** Lienert et al. teach the plastic film is applied by a spraying process(col.9, line 52).

**Regarding Claim(s) 3,** Lienert et al. teach he step of applying the back-foamed layer comprises: applying liquid plastic onto the plastic film after the hardening step; and foaming the liquid plastic to form the back-foamed layer on the plastic film (col.1, line 61-col.2, line 19; col.2,ln14,; col.9, line 56; col.10, lines 63-65).

**Regarding Claim(s) 23,** Böhm et al. teach the fibers are added by a long fiber injection method (col.3, lines 14 and 15).

**Regarding Claim(s) 32,** Lienert et al. teach forming the hardened plastic film to have a maximum thickness of approximately .8 mm (col.9, lines 64 and 65; thickness 5-100 $\mu$ m is less than .8 mm).

**3. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. / Böhm et al. as applied to claim 1 above, and further in view of Wieschermann et al. (U.S. Patent 6623068).**

Lienert et al. / Böhm et al. teach the limitation except the fibers are added by placing fiber mat onto the hardened plastic film before the step of applying the back-foamed layer.

Wieschermann et al. teach the fibers are added by placing fiber mat onto the hardened plastic film before the step of applying the back-foamed layer (col.3, lines 20-28).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to employ the step of adding fibers by placing fiber mat onto the hardened plastic film before the step of applying the back-foamed layer, as taught by Wieschermann et al. on the method of Lienert et al. / Böhm et al. so as to achieve shape determining support on the panel.

**4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. / Böhm et al. as applied to claim 1 above, and further in view of Reedy (U.S. Patent 5707571).**

Lienert et al. / Böhm et al. teach the limitation except the fibers are added by being mixed with a material used to form the back-foamed layer.

Reedy teaches the fibers are added by being mixed with a material used to form the back-foamed layer (col.1, lines 25-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of adding fibers by being mixed with a material used to form the back-foamed layer, as taught by Reedy on the method of Lienert et al. / Böhm et al. so as to reinforce the plastic body.

**5. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. / Böhm et al. as applied to claim 1 above, and further in view of Kralik et al. (U.S 2005/0001347).**

Lienert et al. / Böhm et al. teach the limitation except the step of forming the film-like Exterior covering to have a thickness generally between .5 and 1.5 mm.

Kralik et al. teach the step of forming the film-like exterior covering to have a thickness

generally between .5 and 1.5 mm (page 3, [0046]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of forming the film-like exterior covering to have a thickness generally between .5 and 1.5 mm, as taught by Kralik et al. on the method of Lienert et al. / Böhm et al. so as to produce the motor vehicle part very light and high stability.

**6. Claims 26,28,34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. in view of Böhm et al. and Grimmer (U.S. Patent 5389317) .**

**Regarding Claim(s) 26,** Linert et al. teach a method for manufacturing a vehicle body panel, comprising: applying a plastic film onto a reverse side of a film-like exterior covering (col.2, lines 9-19), applying a back-foamed layer on top of the hardened plastic film (col.10, lines 63 - 65), wherein the steps of applying the plastic film, hardening the plastic film (col.2, lines 13 and 14), and applying liquid foamable material for forming the back-foamed layer (col.7, line 64-col. 8, line 9).

Lienert et al. fail to teach; the film-like exterior covering is disposed in an open foam die; hardening the plastic film such that plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel; and applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die.

Böhm et al. teach the step of hardening the plastic film such that plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel (col.3, lines 34-37).

Grimmer teaches the film-like exterior covering is disposed in an open foam die; and

applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die (Fig. 2; col.4, lines 1-8) so as to eliminate the need of any lateral movement oft form forming chemicals (col.4, lines 31-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of hardening the plastic film such that plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel, as taught by Böhm et al. ; and the step of disposing the film-like exterior covering in an open foam die; and applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die, as taught by Grimmer on the method of Lienert et al. so as to prevent fibers from appearing on the outer surface as small bumps, thereby preserving a high-quality appearance; and eliminate the need of any lateral movement oft form forming chemicals.

**Regarding Claim(s) 28,** Grimmer teaches the open foam die comprises an upper mold half and a lower mold half, and wherein the step of applying the back-foamed layer comprises molding the back-foamed layer against the upper mold half to form varying thicknesses in the back-foamed layer (Fig.2; col.4, lines 1-8).

**Regarding Claim(s) 34 and 35,** Grimmer teaches the open foam die includes a first die half and a second die half movable between an open position and a closed position, and wherein the steps of applying the plastic film, hardening the plastic film, and applying liquid foamable material for forming the back-foamed layer are conducted in one of the first and second die halves in the open position, and including the step of subsequently closing the open foam die by attaching the first and second die halves to each other and creating the black-foamed layer after closing the open foam die; and the step of closing the

Art Unit: 3726

open foam die occurs subsequent to the step of applying liquid foamable material (Figs 1-4; col.4, lines 1-8).

**7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. / Böhm et al. as applied to claim 26 above, and further in view of Belanger et al. (U.S. Patent 5612117).**

Lienert et al. / Böhm et al. teach the limitation except the step of placing at least one insert into the open foam die before the step of applying the back-foamed layer, wherein the at least one insert is embedded into the back-foamed layer after the step of applying the back-foamed layer.

Belanger et al. teach the step of placing at least one insert into the open foam die before the step of applying the back-foamed layer, wherein the at least one insert (25) is embedded into the back-foamed layer after the step of applying the back-foamed layer (Fig. 2, ; col.7, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of placing at least one insert into the open foam die before the step of applying the back-foamed layer, wherein the at least one insert is embedded into the back-foamed layer after the step of applying the back-foamed layer, as taught by Belanger et al. on the method of Lienert et al. / Böhm et al. so as to lock the structure solidly.

**8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. in view of Böhm et al.**

Lienert et al. teach a method for manufacturing a vehicle body panel, comprising:

applying a plastic film onto a reverse side of a film-like exterior covering (col.2, lines 9-19) that is disposed within a foam die (col.7, line 34-39); hardening the plastic film; applying a back-foamed layer on top of the hardened plastic film (col.2, lines 13 and 14; col.10, lines 63-65).

Lienert et al. fails to teach the step of adding fibers to the back-foamed layer, wherin the plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel.

Böhm et al. teach the step of adding fibers to the back-foamed layer (col.3, lines 8-20), wherein the plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel (col.3, lines 34-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of adding fibers to the back-foamed layer, wherein the plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel, as taught by Böhm et al. on the method of Lienert et al. so as to prevent fibers from appearing on the outer surface as small bumps, thereby preserving a high-quality appearance.

**9. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. / Böhm et al. as applied to claim 29 above, and further in view of Grimmer.**

Lienert et al. / Böhm et al. teach the limitation except the step of hardening the plastic film onto the film-like exterior covering occurs while the film-like exterior covering is disposed in the foam die.

Grimmer teaches the step of hardening the plastic film onto the film-like exterior covering occurs while the film-like exterior covering is disposed in the foam die (Fig.2; col.4, lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the step of hardening the plastic film onto the film-like exterior covering occurs while the film-like exterior covering is disposed in the foam die, as taught by Grimmer on the method of Lienert et al. / Böhm et al. so as to eliminate the need of any lateral movement of form forming chemicals.

**10. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lienert et al. in view of Grimmer and Böhm et al..**

Lienert et al. teach a method for manufacturing a vehicle body panel, comprising: applying a plastic film onto a reverse side of a film-like exterior covering (col.2, lines 9-10); hardening the plastic film (col.2, lines 13 and 14); and applying a back-foamed layer on top of the hardened plastic film (col.10, lines 63-65).

Lienert et al. fail to teach the steps of applying the plastic film, hardening the plastic film, and applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die; and plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel.

Grimmer teaches the steps of applying the plastic film, hardening the plastic film, and applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die (Fig. 2; col.4, lines 1-8) so as to eliminate the need of any lateral movement of form forming chemicals (col.4, lines 31-34).

Böhm et al.. teach plastic film prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel (col. 3, lines 34-37).

It would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 3726

invention was made to employ the steps of applying the plastic film, hardening the plastic film, and applying liquid foamable material for forming the back-foamed layer are conducted in the open foam die, as taught by Grimmer so as to eliminate the need of any lateral movement of form forming chemicals; and utilizing plastic film to prohibits fibers from causing imperfections in an exterior surface of the vehicle body panel, as taught by Böhm et al. on the method of Lienert et al. so as to prevent fibers from appearing on the outer surface as small bumps, thereby preserving a high-quality appearance.

***Response to Arguments***

11. Applicant's arguments filed 8/30/06 have been fully considered but they are not persuasive. See the new Office action

Applicants argument regarding ; (1) The plastic film prohibits fibers from causing imperfection, See the claim 22 rejection by Böhm et al. (2) The maximum thickness of the plastic film .8mm, See claim 32 rejection by Lienert et al. whose plastic film has thickness 5-100 $\mu$ m which is within the limitation).(3) Utilizing an open foam die, See the claim 26 rejection by Grimmer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN C. HONG whose telephone number is 571-272-4529. The examiner can normally be reached on HPH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID BRYANT can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JOHN C HONG  
Primary Examiner  
Art Unit 3726

Jh

November 11, 2006